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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/512,138	06/14/2005	David John Moody	056258-5078	6844
9629 7590 03/17/2008 MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004				
EXAMINER				
ASINOVSKY, OLGA				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
03/17/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/512,138

Applicant(s)

MOODY ET AL.

Examiner

OLGA ASINOVSKY

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1. A process for the preparation of an oligonucleotide which comprises the assembly of an oligonucleotide attached to a solid support is indefinite, because there is no definition of an oligonucleotide and there is no step of a process condition to identify term "attached." A step of preparing a solid support is not clear, there is no process condition how to prepare a solid support. There is no definition of a polymerizable unit. The phrase "an acid-labile protecting group, preferably an optionally substituted trityl group" is not clear and confusing: there is no definition of "acid-labile protecting group."

Claim 2. There are no definitions for R^1 and R^5 , a monomer of formula (1) is indefinite.

Claim 4. A condition to produce cross-linking effect is not clear.

Claim 5. A process wherein the oligonucleotide is assembled by the phosphoramidite approach is indefinite. The presence of specified phosphoramidite as an oligonucleotide is not clear.

Claims 3, 6-9 are rejected in light of their dependency directly or indirectly upon the rejected above claims.

Claim 10. A composition of matter having the formula Ps-Z-Q is unclear. There is no definition of a polymerizable unit. The term "attached" is not clear. The phrase "an acid-

labile protecting group, preferably an optionally substituted trityl group" is not clear, the scope of the claimed protective group is not easily determined. There is no definition of a cleavable linker for Z in claim 10. The presence of a protecting group, a nucleoside or an oligonucleotide for Q is not clear. What is the difference between an acid-labile protecting group for Ps polymer chain and Q protecting group? A chemical formulation of a composition in claim 10 is indefinite.

Claims 11-13 are rejected in light of their dependency directly or indirectly upon the rejected claim 10 above.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/02953 (inventor Main, Brian) in view of Reddy et al U.S. patent 5,869,696.

WO 00/02953 is cited under X category in applicants' search report. Reference Patent 6,395,842 to Main belongs to the patent family to WO 00/02953. Reference Patent 5,869,696 is also cited under X category in applicants' search report. Main discloses a solid polymer support containing polyoxyalkylenes. The hydroxypolyC2-4alkyleneoxy chain is readable in the present claims, page 1, lines 31-

37. The hydroxyl group is protected by the presence of a polymerizable monomer such as hydroxystyrene, styrene, hydroxyethyl (meth)acrylate, page 2, lines 3-26 to produce cross-linking. Also, the terminal hydroxyl group is protected by a group selected from the group consisting of acetyl, benzyl, benzoyl, tri(alkyl)silyl and tetrahydropyranyl groups, claim 4 at page 14. The tetrahydropyranyl group may be removed with p-toluene sulphonic acid, page 6, lines 21-22. Although WO'953 does not mention an acid-labile protecting group, the evidence about presence of acid-labile group is within the teaching that tetrahydropyranyl group may be removed with p-toluene sulphonic acid.

WO'953 does not disclose an oligonucleotide attached to a solid support.

Reddy discloses oligonucleotide reagent attached to a solid support via a phosphoramidite linkage, column 4, line 27 and column 3, lines 40-65, for the present claim 5. The phosphoramidite linkage of the oligonucleotide does not effect the solid support bond, such that oligonucleotide intact on the solid support, column 3, lines 63-65 and column 8, line 18.

It would have been obvious to one of ordinary skill in the art to use a process for producing oligonucleotide synthesis reagent attached to a solid support in Reddy invention with a solid support by teaching in WO'953 because the oligonucleotide having phosphoramidite linkage group does not effect the solid support bond in Reddy invention, therefore, any solid support material works equally well within the same expectation.

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4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest references under X category have been considered above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLGA ASINOVSKY whose telephone number is (571)272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/O.A./

March 02, 2008

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/Randy Gulakowski/

Supervisory Patent Examiner, Art Unit 1796